

COPY OF PAPERS
ORIGINALLY FILED

1. (Amended) A method for determining the presence or absence of a target nucleic acid sequence in a sample nucleic acid, the method comprising:
 - (a) exposing the sample to a detection agent comprising a metal surface associated with a SER(R)S active species (SAS) and with a target binding species (TBS),
 - (b) observing the sample/agent mixture using SER(R)S to detect any surface enhancement of the label, [characterized in that] wherein the binding of the TBS to the target sequence causes increased surface enhancement of the SAS.
2. (Amended) [A] The method as claimed in claim 1 wherein the metal surface is not itself [capable of] effective to cause surface enhancement when present in the detection agent of step (a).
3. (Twice Amended) [A] The method as claimed in claim 1 wherein the detection agent is exposed to the sample in step (a) as two or more separate components.
4. (Twice Amended) [A] The method as claimed in claim 1 wherein the detection agent comprises a first agent and a second agent each having a different TBS, each TBS being [capable of binding] effective to bind to the target sequence, and wherein the binding of the first and second

TBS to the target sequence brings a metal surface associated with each TBS into proximity thereby causing surface enhancement of an SAS associated with one or both of the metal surfaces.

5. (Twice Amended) [A] The method as claimed in claim 1 wherein the detection agent comprises monodisperse unaggregated colloidal metal particles associated with a TBS comprising a nucleic acid or nucleic acid analog which is complementary to all or part of the target sequence.
6. (Amended) [A] The method as claimed in claim 5 wherein the TBS comprises propargyl amino modified nucleic acid or peptide nucleic acid.
7. (Twice Amended) [A] The method as claimed in claim 5 wherein there are [more than 1, 2, 3, 4, 5, 10, or] up to 20 TBS per metal colloid particle.
8. (Twice Amended) [A] The method as claimed in claim 1 wherein a surface seeking group (SSG) is used to promote chemi-sorption of at least one of the SAS [and/or] and TBS to the metal surface.
9. (Amended) [A] The method as claimed in claim 8 wherein the SSG comprises [the] a triazole group[, more preferably the benzotriazole group].

10. (Twice Amended) [A] The method as claimed in claim 8 wherein the SSG is modified with a dye which is a SAS.
11. (Amended) [A] The method as claimed in claim 10 wherein the modified SSG is an azobenzotriazole.
12. (Twice Amended) [A] The method as claimed in claim 10 wherein the modified SSG is used to associate the TBS to the metal surface.
13. (Amended) [A] The method as claimed in claim 12 wherein the modified SSG is conjugated to the TBS via a linker group.
14. (Twice Amended) [A] The method as claimed in claim 1 wherein the SAS is present in [greater than 2, 5, 10, 20, 30, 40, 50 or] an amount of up to 100 fold excess over the TBS.